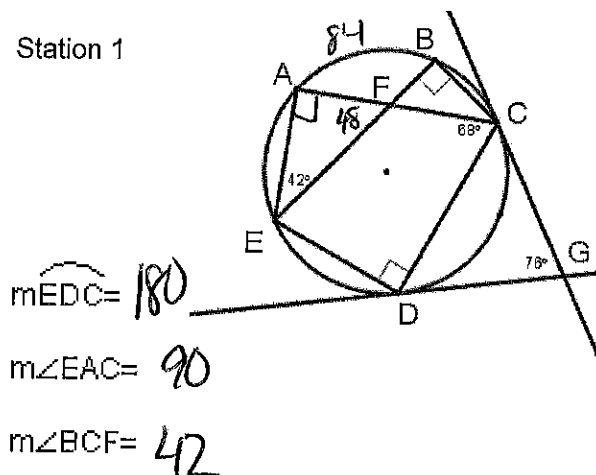
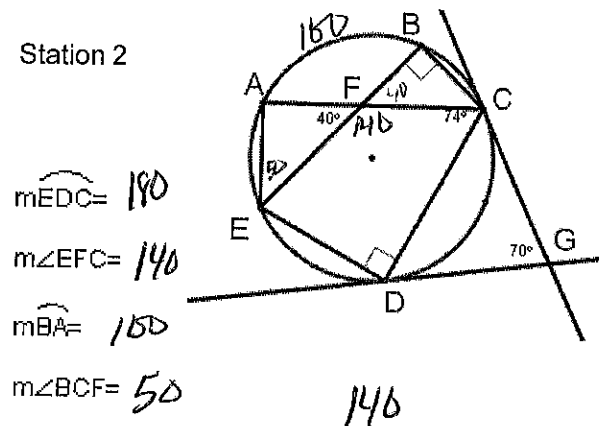


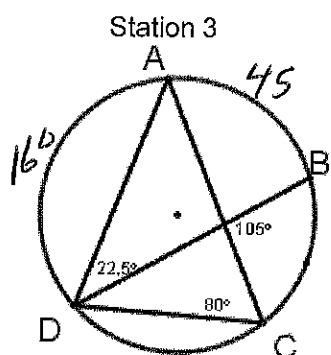
Station 1



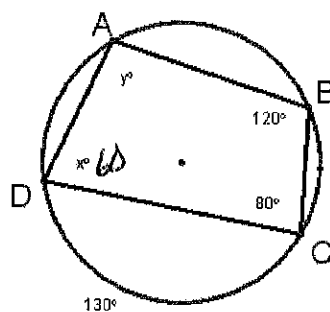
Station 2



$m\widehat{DA} = 160$
 $m\widehat{AB} = 45$
 $m\widehat{BC} = 50$



Station 4



$x = 60$
 $y = 120$

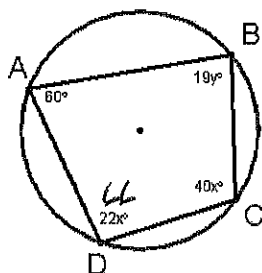
$m\widehat{ADC} = 240$
 $m\widehat{AD} = 110$
 $m\widehat{BC} = 70$

$$105 = \frac{1}{2}(160 + x)$$

$$210 = 160 + x$$

$$\begin{array}{r} 210 \\ -160 \\ \hline 50 = x \end{array}$$

Station 5

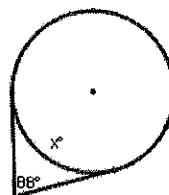


$$\begin{aligned} x &= 3 \\ y &= 6 \\ m\angle B &= 114 \\ m\angle C &= 120 \\ m\angle D &= 66 \end{aligned}$$

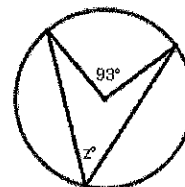
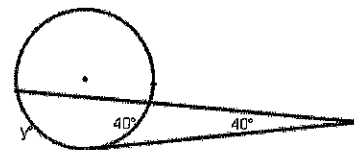
$$\begin{aligned} 40x &= 120 \\ x &= 3 \end{aligned}$$

$$\begin{aligned} 19y + 66 &= 180 \\ 19y &= 114 \\ y &= 6 \end{aligned}$$

Station 6



$$\begin{aligned} x &= 92 \\ y &= 120 \\ z &= 46.5 \end{aligned}$$



$$40 = \frac{1}{2}(y - 40)$$

80

Express answers in terms of z, y, z, and w.

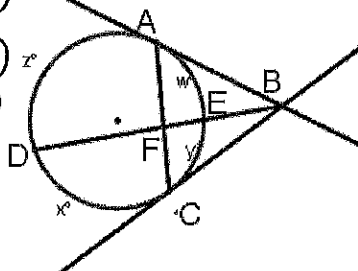
Station 7

$$m\angle ABD = \frac{1}{2}(z - w)$$

$$m\angle CFD = \frac{1}{2}(x + w)$$

$$m\angle EFC = \frac{1}{2}(y + z)$$

$$m\angle CBD = \frac{1}{2}(x - y)$$



Station 8

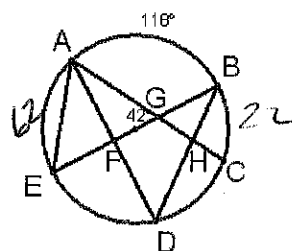
$$m\widehat{AE} = 62$$

$$m\widehat{BC} = 22$$

$$m\widehat{EC} = 158$$

$$m\angle D = 59$$

$$m\angle E = 59$$



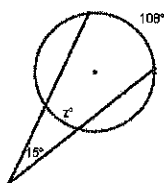
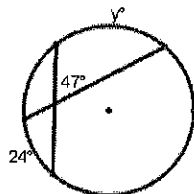
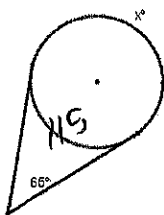
$$42 = \frac{1}{2}(62 + 22)$$

$$84 = 62$$

$$-62$$

$$22 = m\widehat{BC}$$

Station 9



$$x = 245$$

$$y = 70$$

$$z = 78$$

$$47 = \frac{1}{2}(245y)$$

$$15 = \frac{1}{2}(108 - z)$$

$$30 = 108 - z$$

$$-78 = -z$$